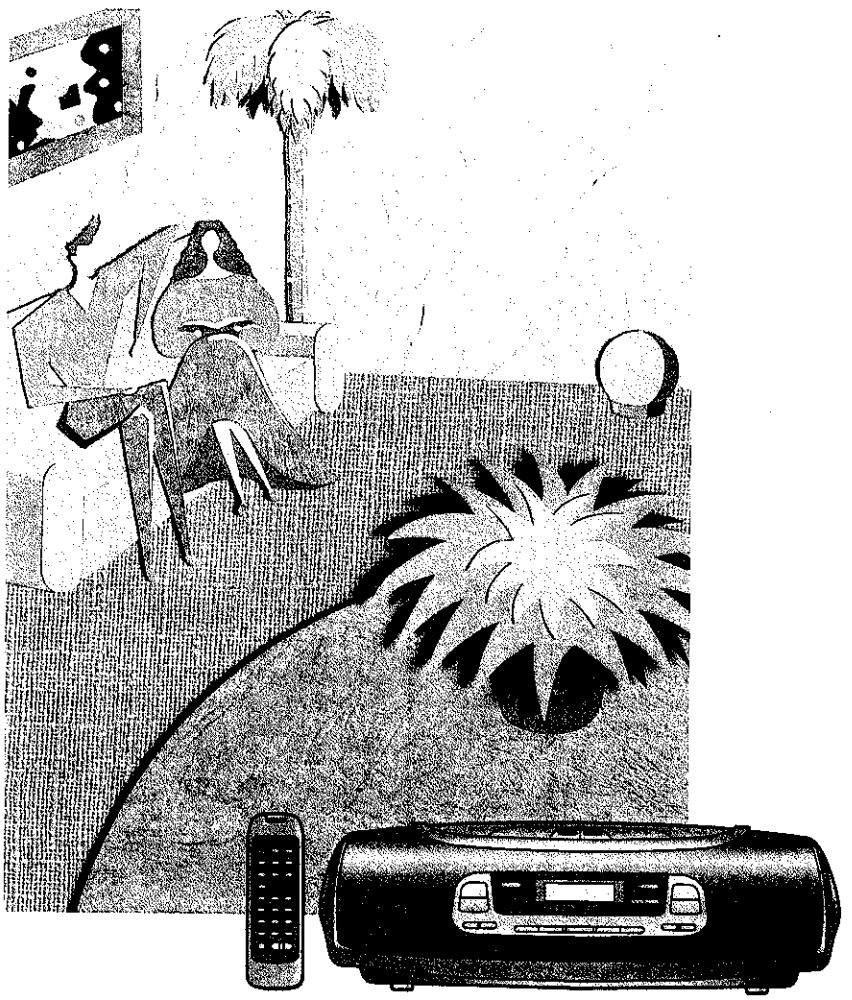
Panasonic®

Portable Stereo CD System
RX-ES50

Operating Instructions



Note:
The "EB" indication shown on the outside packing case indicates United Kingdom.

Before connecting, operating or adjusting this product, please read these instructions completely. Please save this manual.

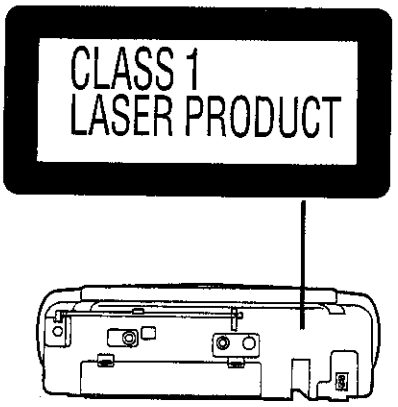
COMPACT disc DIGITAL AUDIO

EB GN

RQT3458-B

Dear customer

Thank you for purchasing this product.
For optimum performance and safety, please read these instructions carefully.



(Back of product)

DANGER	INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCK DEFEATED. AVOID DIRECT EXPOSURE TO BEAM.	(Inside of product)
ADVARSEL	USYNLIG LASERSTRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSÆTTELSE FOR STRÅLING.	(Indersiden at apparatet)
VARO!	AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTÖNTA LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN	(Tuotteen sisällä)
VARNING	OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN.	(Apparatens insida)
ADVARSEL	USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES OG SIKKERHEDSLÅS BRYTES. UNNGÅ EKSPONERING FOR STRÅLEN	(Produktets innside)
VORSICHT	UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET UND SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT. NICHT DEM STRAHL AUSSETZEN.	(Im Inneren des Gerätes)

CAUTION!
THIS PRODUCT UTILIZES A LASER.
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.
DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.

CAUTION!
DO NOT INSTALL OR PLACE THIS UNIT IN A BOOKCASE, BUILT IN CABINET OR IN ANOTHER CONFINED SPACE IN ORDER TO KEEP WELL VENTILATED CONDITION. ENSURE THAT CURTAINS AND ANY OTHER MATERIALS DO NOT OBSTRUCT THE VENTILATION HOLES TO PREVENT RISK OF ELECTRIC SHOCK OR FIRE HAZARD DUE TO OVERHEATING.

WARNING:
TO PREVENT THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO DRIPPING OR SPLASHING.

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Caution for AC Mains Lead

(For United Kingdom)

("EB" area code model only)

For your safety, please read the following text carefully.

This appliance is supplied with a moulded three pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5-ampere and that it is approved by ASTA or BSI to BS1362.
Check for the ASTA mark ⓐ or the BSI mark ⓚ on the body of the fuse.

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local dealer.

CAUTION!
IF THE FITTED MOULDED PLUG IS UNSUITABLE FOR THE SOCKET OUTLET IN YOUR HOME THEN THE FUSE SHOULD BE REMOVED AND THE PLUG CUT OFF AND DISPOSED OF SAFELY.
THERE IS A DANGER OF SEVERE ELECTRICAL SHOCK IF THE CUT OFF PLUG IS INSERTED INTO ANY 13-AMPERE SOCKET.

If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt please consult a qualified electrician.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue: Neutral
Brown: Live

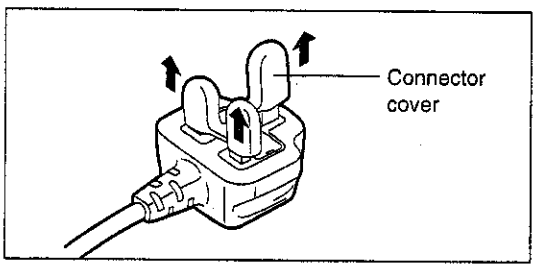
As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.

The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.

Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol ⏚.

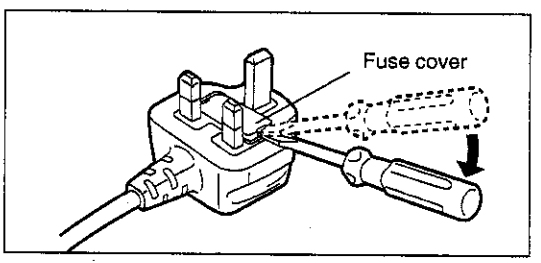
Before use

Remove the connector cover as follows.

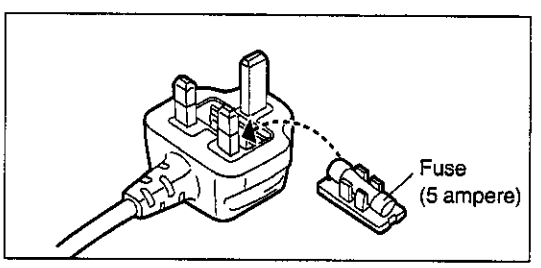


How to replace the fuse

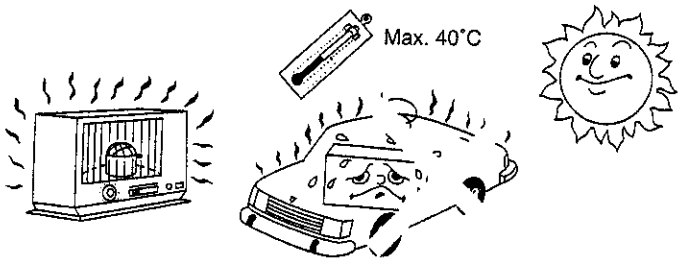
1. Remove the fuse cover with a screwdriver.



2. Replace the fuse and attach the fuse cover.



Precautions



- **If this unit is not used for a long period of time or is used only from an AC power source, remove all the batteries to prevent potential damage due to possible battery leakage.**
- Avoid using or placing this unit near sources of heat. Do not leave it in an automobile exposed to direct sunlight for a long time with the doors and windows closed as this may deform the cabinet.
- Avoid cuts, scratches, or poor connections in the AC power cord, as they may result in possible fire or electric shock hazard. Also, excessive bending, pulling or splicing of the cord should be avoided.
- Do not unplug the AC power cord by pulling on the cord. To do so may cause premature failure or shock hazard.
- Do not operate this unit on AC power in a bathroom, as a potential shock hazard may result.
- When not in use, disconnect the AC power cord from the household AC outlet.

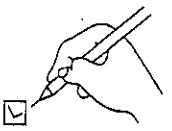
Use of batteries

- Do not mix old and new batteries, or batteries of different types (manganese and alkaline, etc.).
- Always remove old, weak or worn-out batteries promptly and dispose of them properly.
- Never subject batteries to excessive heat or flame; do not attempt to disassemble them, and be sure they are not short-circuited.
- If this unit is not to be used for a long period of time or is used only from an AC power source, remove the batteries and store them in a cool, dark place.
- If a battery leaks, remove all batteries and dispose of them properly.
- Thoroughly clean the battery compartment before inserting new batteries.
- If the electrolyte comes into contact with skin or clothes, flush with water immediately.
- Keep batteries out of reach of children.
- Do not use rechargeable type batteries.
- Do not attempt to recharge alkaline or manganese batteries.
- Batteries installed with incorrect polarities may leak and damage the unit.

BE SURE TO READ THE CAUTION FOR THE AC MAINS LEAD ON PAGE 3 BEFORE THE FOLLOWING CONNECTION.

In these operating instructions, "unit off" is defined as the following mode.
"Standby" when AC power is used.
"Battery power off" when batteries are used.

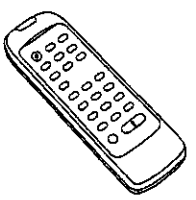
Supplied Accessories



Please check and identify the supplied accessories.

☐ AC power cord
(For United Kingdom: RJA0038-U)
(For Australia and N.Z.: RJA0035) . . . . . 1 pc.

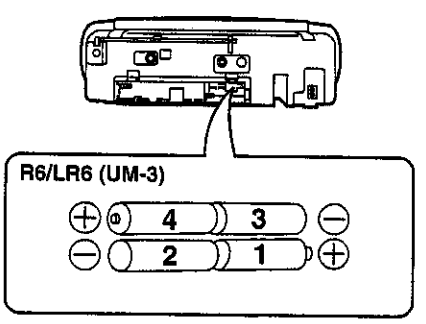
☐ Remote control transmitter
(EUR643823) . . . . . 1 pc.



Memory Back-up Batteries

It is recommended that the memory back-up batteries (not included) be installed first to prevent the memory contents from being lost when the power fails, the power cable has been disconnected or the batteries have become flat.

Battery installation

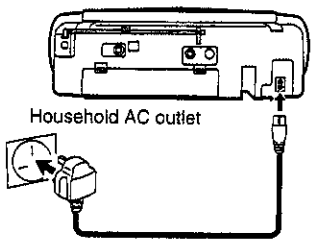


Battery life

- The service life of these batteries is approximately one year.
  To preserve the memory contents, connect the power cable to the household AC outlet before replacing all the back-up batteries with new ones.
- When disconnecting the power cable, first turn the unit off by pressing POWER.
  The service life of the memory back-up batteries is reduced if the power cable is disconnected from the household AC outlet with the power still supplied.

Power Sources

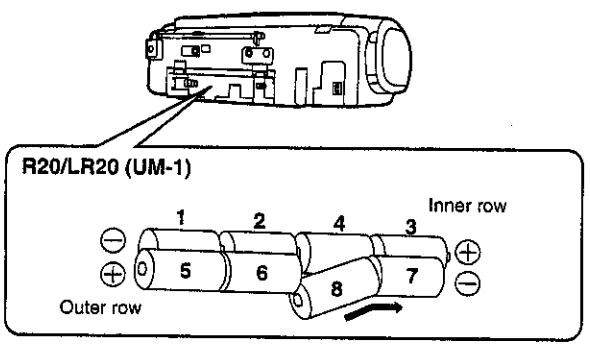
To operate on AC power



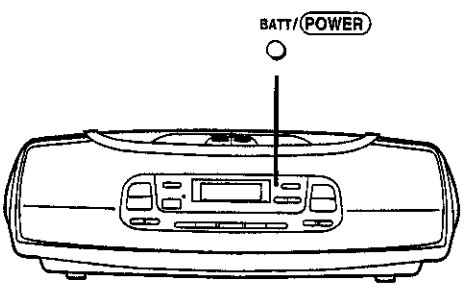
The configuration of the AC power cable and household power outlet differ according to area.

To operate on battery power

Battery installation



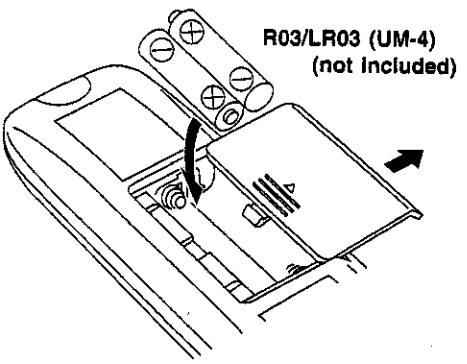
Battery life



When the battery check indicator goes off (or dims) during play, replace all the batteries with new ones.

Concerning the Remote Control

Battery installation

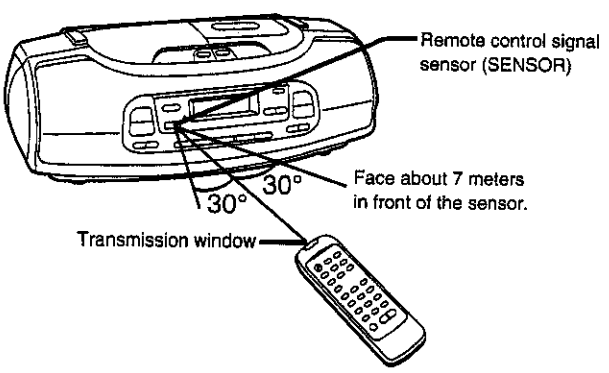


To remove the batteries, pull out the ⊕ side.

Battery life

The battery life is about one year.
Although the battery life varies depending on how often the device is used, the batteries should be replaced about once every year on the average.
The batteries should be replaced if commands from the remote control transmitter do not operate the unit even when transmitter is held close to the front panel.

Correct method of use

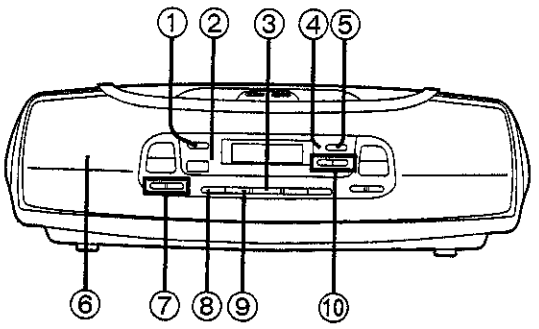


Operation notes

- Do not place obstacles between the remote control signal sensor and remote control unit.
- Do not expose the remote control signal sensor to direct sunlight or to the bright light of an invertor fluorescent light.
- Take care to keep the remote control signal sensor and end of the remote control unit free from dust.

Location of Controls

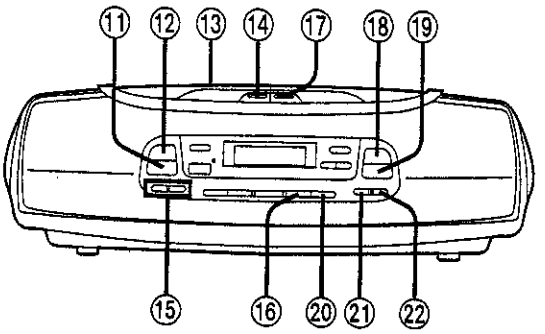
Basic/Tuner controls



No.	Name	Ref. page
①	**Band select button (BAND)**	*11*
②	**Standby indicator [STDBY ⏻ (AC)]** When the unit is connected to the AC mains supply, this indicator lights up in standby mode and goes out when the unit is turned on.	
③	**Preset equalizer button (PRESET EQ)**	*15*
④	**Battery check indicator (BATT/POWER)**	*5*
⑤	**Power "STDBY ⏻ (AC)/ON" switch (POWER)** Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.	
⑥	**Speakers**	
⑦	**Time set/Tuning buttons (CD/TUNE/TIME ▶▶|/+, |◀◀/−)**	*7, 11*
⑧	**Time adjust button (CLOCK/TIMER, ADJUST)**	*7*
⑨	**Timer button (TIMER)**	*21, 23*
⑩	**Volume control buttons (VOLUME +, −)**	*8, 11, 13*

This portable stereo can play and record with the touch of a single button. Therefore, in order to keep from accidentally recording over important tapes, we recommend that you remove the recording-protection tabs from your tapes (see page 30).

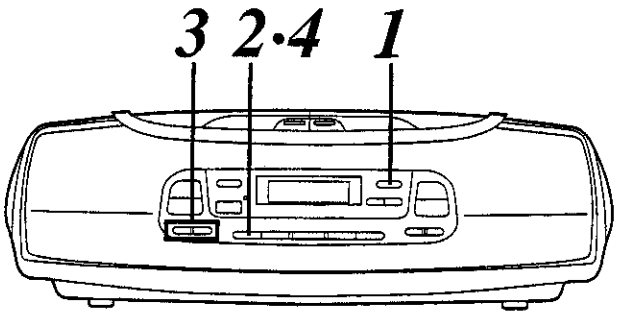
CD/Cassette deck controls



No.	Name	Ref. page
⑪	**Stop/clear button (■/CLEAR)**	*8*
⑫	**Play/pause button (▶/❚❚)**	*8*
⑬	**Disc lid**	*8*
⑭	**Disc lid open button (⏏)**	*8*
⑮	**Skip/Search buttons (CD/TUNE/TIME ▶▶|/+, |◀◀/−)**	*8*
⑯	**CD rec mode button (CD REC MODE AUTO/ONE)**	*18, 19*
⑰	**Tape eject button (⏏)**	*13*
⑱	**Tape play/direction button (◀ ▶)**	*13*
⑲	**Tape stop button (■)**	*13*
⑳	**Rec/rec pause button (●/● ❚❚ REC/PAUSE)**	*16, 20*
㉑	**Rewind/TPS button (REW TPS)**	*14*
㉒	**Fast forward/TPS button (TPS FF)**	*14*

Setting the Clock

The clock has a 24-hour display.



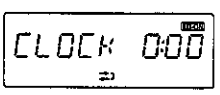
Example: Setting the clock to 16:20:

1 BATT/POWER

Press POWER.
(This turns the unit on.)

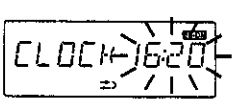
2 CLOCK/ TIMER ADJUST

Press ADJUST so that "CLOCK" is displayed.
Clock→Timer time to start
↑ ↓
Original display←Timer time to finish
(The display changes each time the button is pressed.)



3 CD/TUNE/TIME

Press ▶▶|/+ or |◀◀/— to show desired time.
The time display can be changed in one minute units by tapping the buttons, and quickly by holding down the buttons.

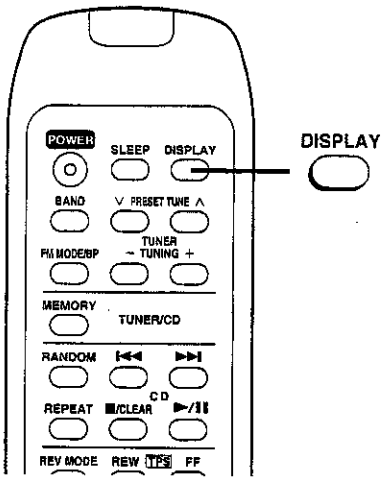


4 CLOCK/ TIMER ADJUST

While the time display is flashing, Press ADJUST.
(The clock now starts operating, and the display returns to its original status.)

Selecting the Display

(Available only from the remote control)
This operation comes in handy to check the present time during play or the tape counter display during recording.



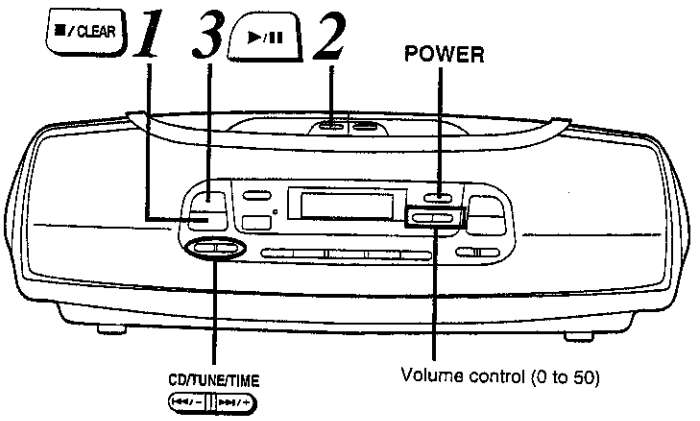
DISPLAY

Press DISPLAY.

Play status (CD/Radio)→Present time→Tape counter
↑ ↓

(The display changes each time the button is pressed.)
"----" appears on the tape counter display when a tape has not been loaded.

Listening to CDs

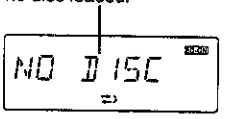


Press POWER.
(Only when the batteries are used for the power supply)

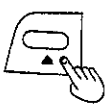
1

Press ■/CLEAR.

Indicates that there is no disc loaded.

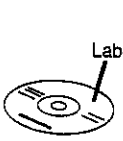


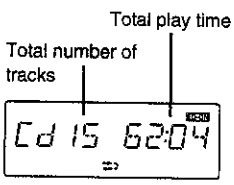
2



Press ▲, insert a CD and close the lid.

Insert the CD with its label surface facing up.

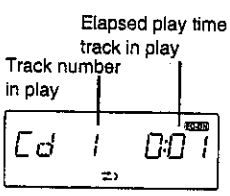




3

Press ►/II.

Play starts from track 1 and continues to the last track, after which it automatically stops.



To stop play:

Press ■/CLEAR.

To stop temporarily, press ►/II.
To resume play, press ►/II again.

Notes

- Interference may affect radio or TV reception when CDs are played close to a radio or TV set. If this occurs, place the unit as far away from the radio or TV.
- When the batteries are used for the power supply, pressing POWER on the remote control can not turn the unit on.

Hint

If a CD is loaded, pressing ►/II wil automatically turn the unit on and start play (only when AC power is supplied).

To skip tracks

Press ►►|/+ to skip to the start of the next track.

Press |◄◄/– to skip to the start of the present track.

Press the button repeatedly to skip tracks in the number that corresponds to the number of times you press the button.

To search forward or backward

During play:

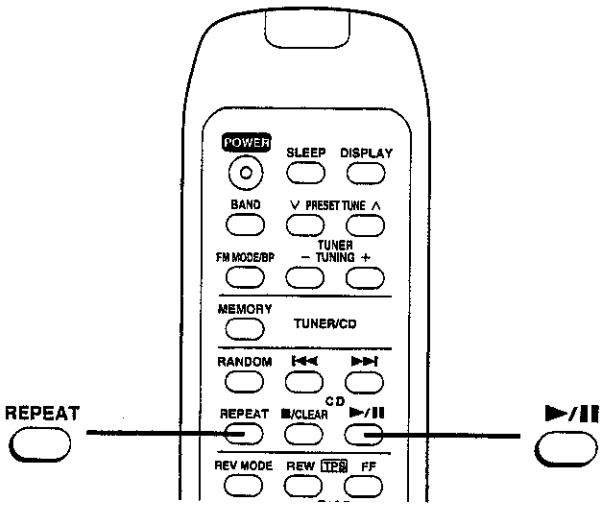
Continuously press ►►|/+ to search forward.

Continuously press |◄◄/– to search backward.

Release the button at the desired position.

To repeat tracks

(Available only from the remote control)



REPEAT

Press REPEAT.

1- → ALL- →off

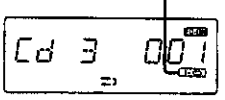
(The display changes each time the button is pressed.)

To repeat only one track

REPEAT

Press REPEAT to turn 1- on the display.

Lights.

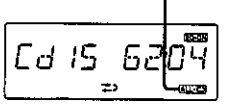


To repeat all tracks on the CD

REPEAT

Press REPEAT to turn ALL- on the display.

Lights.



To repeat program tracks

① **Program desired tracks (see steps 1 to 4 on page 10).**

② **Press REPEAT to turn ALL- on the display.**

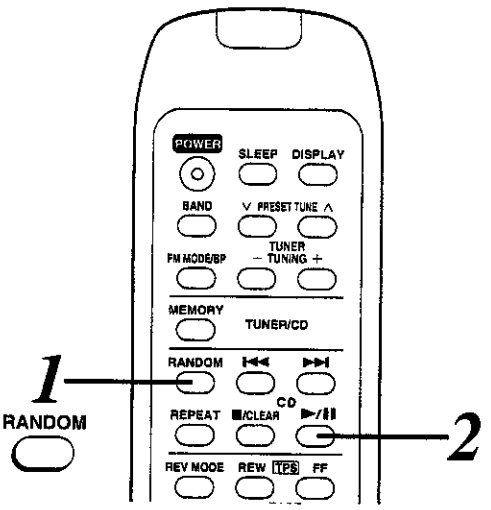
③ **Press ►/II to start.**

To release the repeat function:

Press REPEAT to turn off both 1- and ALL-.

Random play

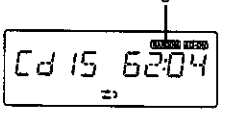
(Available only from the remote control)



1 RANDOM

Press RANDOM in the stop mode.

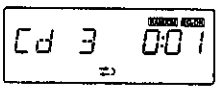
Lights.



2 ►/II

Press►/II to start.

All the tracks are played at random, and play automatically stops.



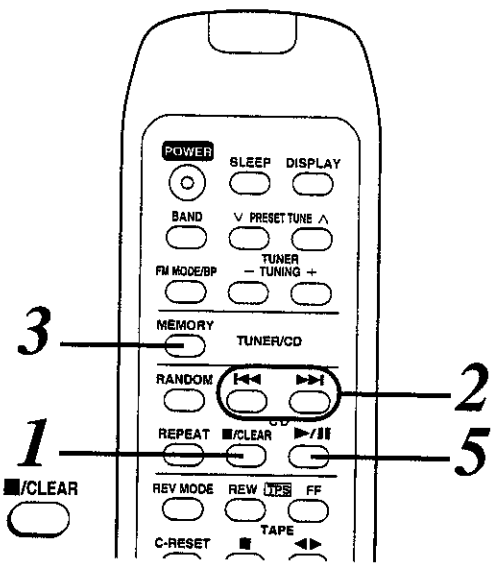
To clear random play:

Press RANDOM to turn off the RANDOM indicator.

- Random play cannot be used in combination with program play.
- Skipping is not possible to track which have been played (see page 8).
- Search (see page 8) is possible only within the track in play.

Selecting and listening to your favorite tracks (Program play)

(Available only from the remote control)
Up to 36 tracks can be programmed.

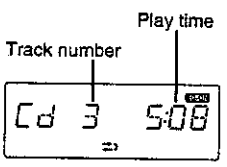


1 ■/CLEAR

Press ■/CLEAR.
Press RANDOM on the remote control if RANDOM indicator is on.

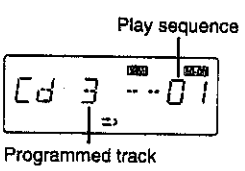
2 ⏮ ⏭

Press ⏭ or ⏮ to select desired track.



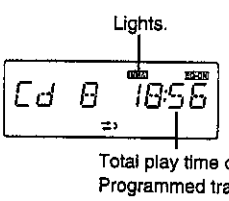
3 MEMORY

Press MEMORY.



4

Repeat steps 2 and 3.



5 ►/II

Press ►/II.
The programmed tracks are played in the programmed sequence, and play stops automaticlly.

To clear program play:

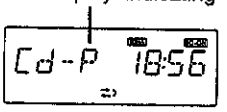
Press ■/CLEAR in the stop mode.
"CLEAR" appears on the display and all the programmed contents will be cleard.

When "--:--" appears:
This means that the total play time of the programmed tracks has exceeded 120 minutes. Tracks can still be programmed and played.

When "FULL" appears:
This means that the total number of the programmed tracks has exceeded 36. No more tracks can be programmed.

Memory retention of programmed tracks:

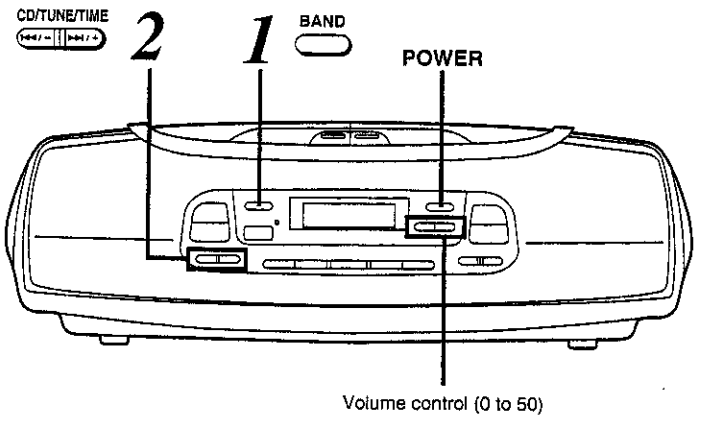
The programming of the tracks will be retained in the memory even if play is stopped at any time or the unit is turned off.
"P" appears on the display indicating that programmed memory remains.

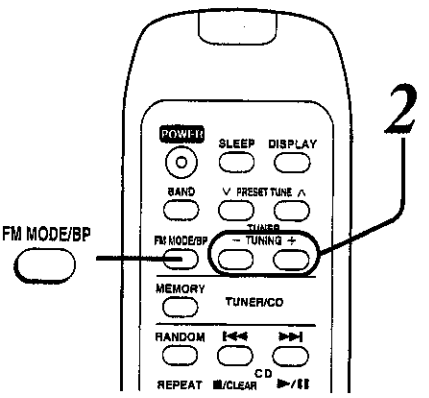


The programmed memory will be cancelled in the following cases;
- When ⏏ is pressed
- When you disconnect the power cord without installing the memory back-up batteries

To check what has been programmed:
While "P" is on the display, press ⏭ or ⏮ in the stop mode. Each time these buttons are pressed, a track number and its play sequence can be checked.

Listening to the Radio





Press POWER.
(Only when the batteries are used for the power supply)

1

For United Kindgom

Press BAND to display "LW", "MW" or "FM".

LW→MW→FM

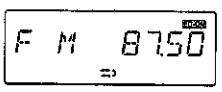
(The display changes each time the button is pressed.)

For Australia and New Zealand

Press BAND to display "AM" or "FM".

AM→FM

(The display changes each time the button is pressed.)



2

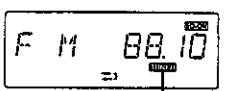
Press ▶▶|/+ or |◀◀/− (TUNING + or − on the remote control) to select the station.

▶▶|/+: The frequency is increased.
|◀◀/−: The frequency is reduced.

Automatic tuning:

Keep ▶▶|/+ or |◀◀/− depressed until the frequency display starts to change. A station with good reception is automatically selected and the selection process then stops.

To stop automatic tuning, press ▶▶|/+ or |◀◀/− again.

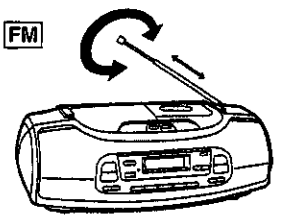


Lights when a station is tuned in properly.

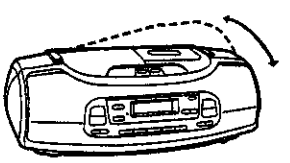
3

Adjust the antenna.

FM



AM(LW/MW)



Note

When the batteries are used for the power supply, pressing POWER on the remote control cannot turn the unit on.

Hint

- Pressing BAND will automatically turn the unit on and receive the broadcasts which is previously tuned (only AC power is supplied).
- The automatic tuning may stop without a station having been tuned in when interference is encountered on neighboring airwaves. In such a case, tune in a station by tapping ▶▶|/+ or |◀◀/−.
- Radio broadcasts may be hard to receive in a moving vehicle or building because their signals are weak. In such cases, use the unit near by a window.

When FM stereo reception is too noisy

(Available only from the remote control)

Set the sound to the monaural mode to reduce the noise.

Press FM MODE/BP.

The MONO display appears.

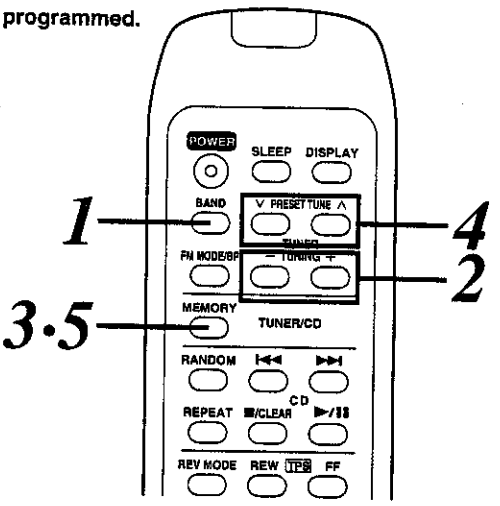
To return to stereo sound, press FM MODE/BP again to turn off the MONO display.

Preset tuning

(Available only from the remote control)
Once broadcast stations have been programmed, they can easily be tuned in.

For United Kingdom
Up to ten FM, LW and MW stations each can be programmed.

For Australia and New Zealand
Up to ten FM and AM stations each can be programmed.



Programming broadcast stations

1 BAND

For United Kindgom
Press BAND to display "LW", "MW" or "FM".
LW→MW→FM

(The display changes each time the button is pressed.)

For Australia and New Zealand
Press BAND to display "AM" or "FM".
AM→FM

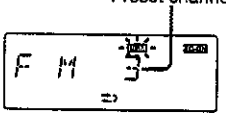
(The display changes each time the button is pressed.)

2 – TUNING +
Press + or – to select the station.

3 MEMORY
Press MEMORY.

4 ∨ PRESET TUNE ∧
While PGM is flashing, Press PRESET TUNE ∧ or ∨ to display the preset channel to be programmed.

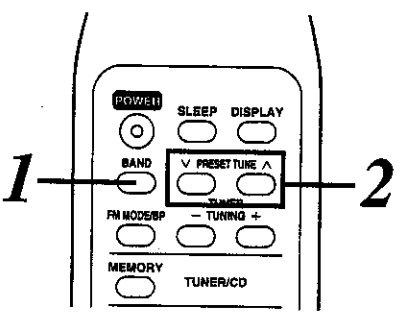
Preset channel



5 MEMORY
While PGM is flashing, Press MEMORY.

6
Repeat steps 2 to 5 to program other stations.

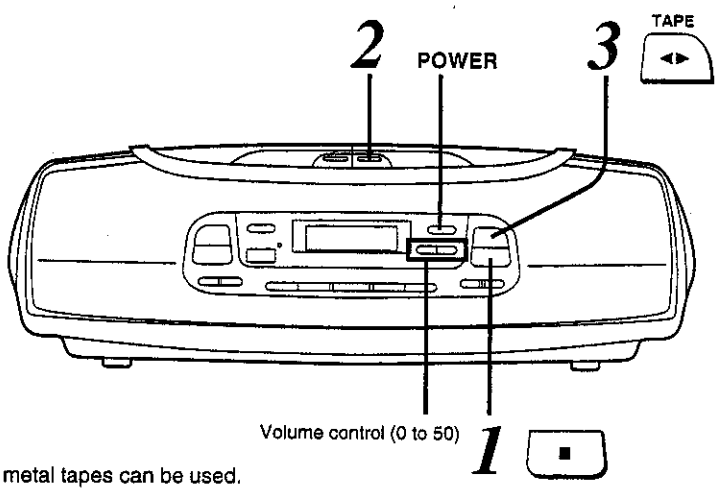
Selecting the preset channel



1. **For United Kingdom**
   Press BAND to display "LW", "MW" or "FM"
   For Australia and New Zealand
   Press BAND to display "AM" or "FM".
2. **Press PRESET TUNE ∨ or ∧ to select the station.**

The station is changed each time the button is pressed.

Listening to Tapes

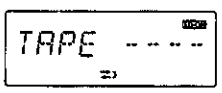


Normal, high postition and metal tapes can be used.

Press POWER.
(Only when the batteries are used for the power supply)

1

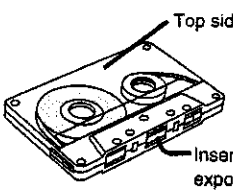
Press ■.

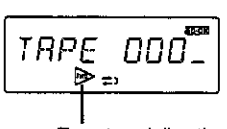


2

Press ▲, load the tape and close the lid.

The direction is automatically set to play the top side (is displayed).





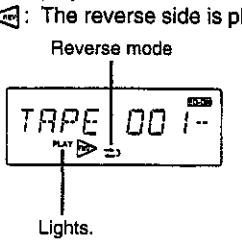
3

Press ◀ ▶.

Playback now starts.

: The side which is facing up is played back.

: The reverse side is played back.



To stop play:

Press ■.

To listen to another side of the tape:

Press ◀ ▶ during playback.

Note

When the batteries are used for the power supply, pressing POWER on the remote control cannot turn the unit on.

Hint

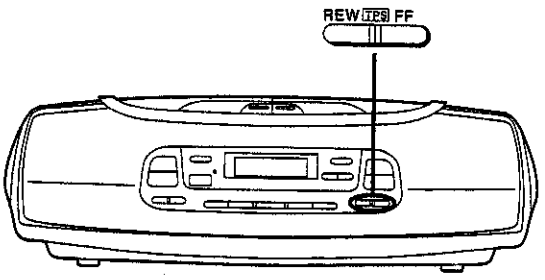
If a tape is loaded, pressing ◀ ▶ will automatically turn the unit on and start playback (only when AC power is supplied).

Type of tape which can be played on this unit:

The unit automatically identifies the type of tape.

Normal position/TYPE I	○
High position/TYPE II	○
Metal position/TYPE IV	○

Fast forwarding and rewinding a tape

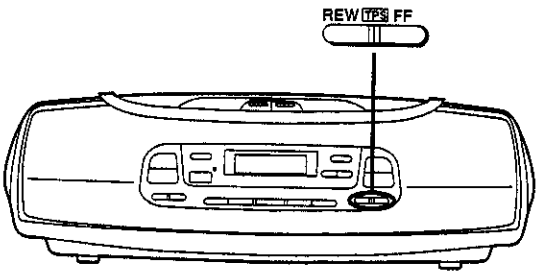


In the stop mode, press TPS FF or REW TPS.

The tape is fast forwarded or rewound in the direction of the allows (▶▶ or ◀◀) on the display.

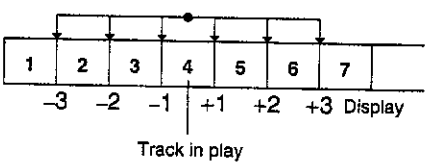
To find the beginning of a track (TPS: Tape Program Sensor)

Up to 9 programs before or after the program now heard.



Press TPS FF or REW TPS while the tape is playing.

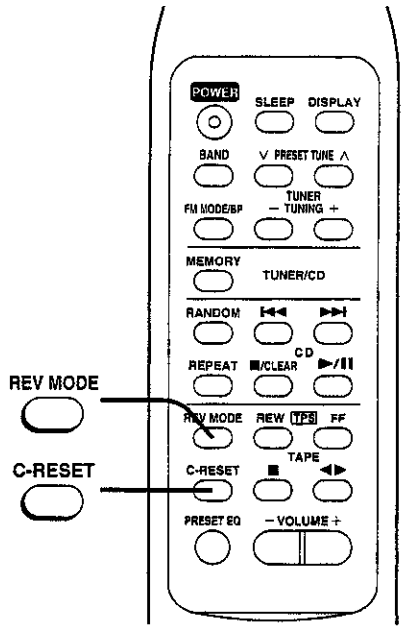
TPS FF: Play will start from the beginning of the next track.
REW TPS: The tape will rewind to the beginning of the present track.



Note

Since the blank spaces between tracks are used for locating the beginning of each track, the TPS function may not operated in the following cases:

- When the blank spaces are 4 seconds or less.
- When there are no blank spaces on the tape (such as when the recording has been made from a microphone, etc.).
- When there are parts of a track which have been recorded at a particularly low level or which have not been recorded at all (such as with classical music).
- When 10 or fewer seconds have elapsed since the beginning of a track or when there are 10 or fewer seconds untill beginning of the next track.
- When a tape is recorded with fade-ins or fade-outs.



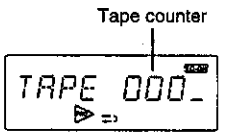
To reset the tape counter to "000"

(Available only from the remote control)

C-RESET

Press C-RESET.

Tape counter

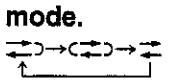


Selecting the reverse mode

(Available only from the remote control)

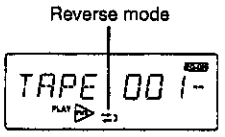
REV MODE

Press REV MODE to select the mode.



(The display changes each time the button is pressed.)

Reverse mode



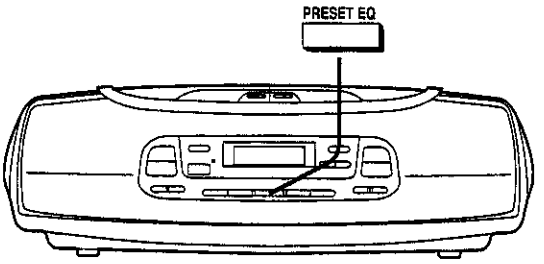
: The tape plays from the side facing up to the reverse side, and then it stops automatically.

: The tape plays repeatedly until ■ (STOP) is pressed.

: Only one side of the tape is played, and then the tape stops automatically.

Selecting the Equalizer Effects

Four different sound quality effects are preset in this unit.

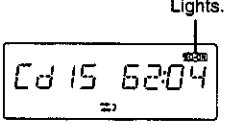


PRESET EQ

Press PRESET EQ to select the desired sound quality effect.

(The display changes each time the button is pressed.)

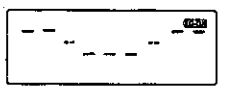
Lights.



Types of preset sound quality effects

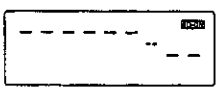
XBS

This gives an added punch to rock music, etc.

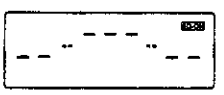


This boosts the treble range of music.

This produces a soft, background music effect.



This enhances vocals.

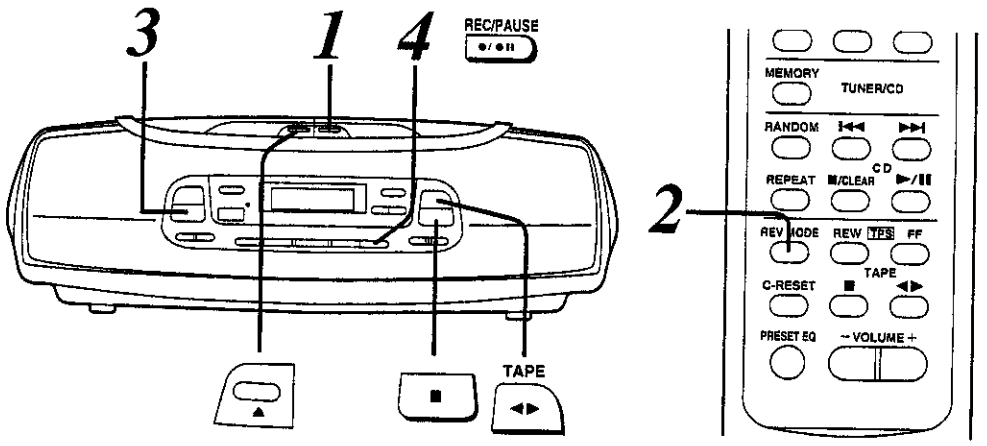


To cancel the sound quality effect (To return the sound quality to its original setting):

Press PRESET EQ to display "EQ-OFF".

Recording from CD

Recording and CD play starts at the same time automatically.
Normal and high position tapes can be used.



1

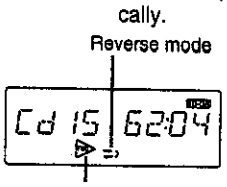
Load the tape with the side to be recorded first facing up.
Find the position on the tape where the recording is to start.
When recording from the start of side A or B, have the leader tape wound up before proceeding.

2

Select the mode with REV MODE on the remote control.

⇄ ⇄: Sound is recorded on the side facing up and then the reverse side, and the tape stops automatically.

⇄: Sound is recorded on only one side of the tape, and then the tape stops automatically.

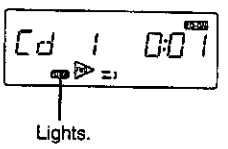


3

Insert the CD and press ■/CLEAR.

4

Press ●/● II.
Recording now starts.
After recording is over, both CD play and recording on the deck stop automatically.
▷: Recording starts from the side facing up.
◁: Recording starts from the reverse side.

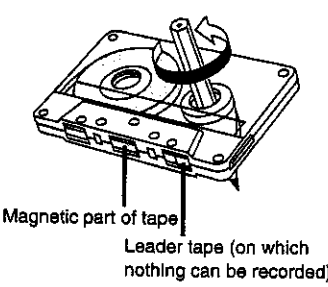


To stop recording:

Press ■.
CD play also stops at the same time.

To stop recording temporarily:
Press ●/● II.
To resume recording, press ●/● II.

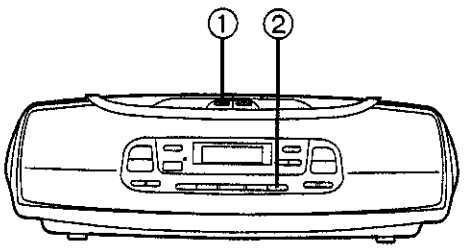
To wind up the leader tape:



After the recording is over

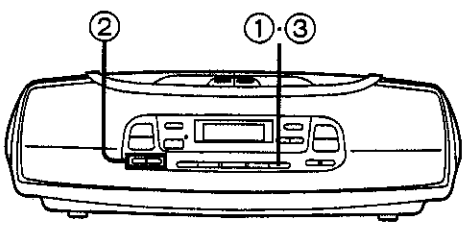
When CD play is finished, the tape stops simultaneously.

To record another CD in succession:



① **Press ⏏ and replace the CD.**
② **Press ●/● ❚❚.**

To skip tracks which you do not want to record



① **During recording, press ●/● ❚❚. CD also pauses.**
② **Press ▶▶|/+ or |◀◀/— to display the track number which is to be recorded next.**
③ **Press ●/● ❚❚ to resume recording.**

Recording your favorite tracks

After completing step 3 on page 16, program your favorite tracks (see steps 2 to 4 on page 10) and press ●/● ❚❚.

To switch the tape direction (Forward to backward)

This function is available only when ▷ is displayed.
Press ◀ ▶ during recording.
The direction can not be switched when ◁ is displayed.

For your reference:

- In order to prevent trouble caused by flat batteries, it is recommended that you either supply power to the unit from the household AC outlet or replace all the batteries with new ones when you are recording something which is important to you.
- Any change made to the volume or sound quality during recording will not affect the recording.
- The recording level is set automtically.

Type of tape which can be used for recording:

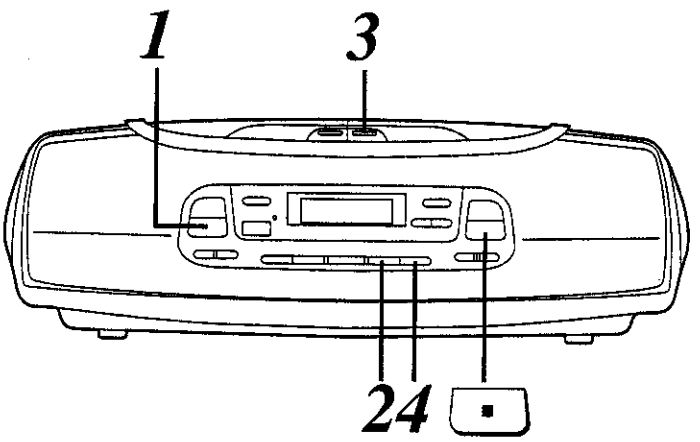
Normal position/TYPE I	○
High position/TYPE II	○
Metal position/TYPE IV	×

This unit can not make a recording or erasing correctly, if metal position tapes are used.

Your attention is drawn to the fact that recording pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

Easy CD Recording (AUTO)

All the tracks are recorded in their original sequence onto a single tape. (The reverse mode is set to ⇄.)
Only part of a track may be recorded at the end of the top side. This track will be re-recorded in its entirety at the beginning of the reverse side.



Preparation: Insert the CD.

1

Press ■/CLEAR.

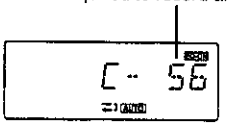
2

Press CD REC MODE to display "AUTO".
AUTO→1-REC→OFF

(The display changes each time the button is pressed.)

When "C---" appears:
You cannot make easy CD recording.
Follow the steps on page 16.

Length of the tape required to record all tracks



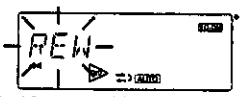
3

Press ▲ of the tape lid and load the tape which is longer than the length indicated in step 2.
The direction is automatically set to record on the side facing up (▷ display lights).

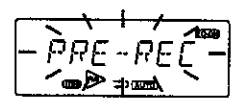
4

Press ●/● ❚❚ to start recording.
The tape is automatically rewound, and after recording no signal for 10 seconds, recording starts from the first track.

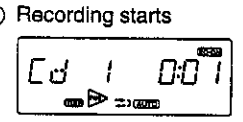
① Tape now rewinding



② 10-second blank now being recorded



③ Recording starts



- Only part of a track may be recorded at the end of the top side. This track will be re-recorded in its entirety at the beginning of the reverse side.

To stop recording:

Press ■.
CD play also stops at the same time.

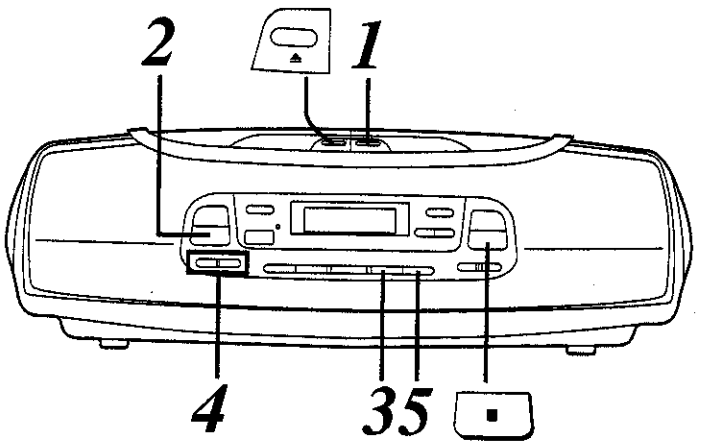
Recording your favorite tracks

After completing step 1, program your favorite tracks (see steps 2 to 4 on page 10).

Note
Easy CD recording can not be used in combination with the random play (see page 9).

One track recording (1 TRACK)

The unit will record only one track you selected, and stops automatically.



Preparation: Insert the CD.

1 **Load the tape with the side to be recorded facing up.**

- Find the postition on the tape where the recording is to start.
- The direction is automatically set to record on the side facing up (▷ display lights).
- When recording from the start of side A or B, have the leader tape wound up before proceeding (see page 16).

2 **Press ■/CLEAR.**

3 **Press CD REC MODE to display "1-REC".**

AUTO→1-REC→OFF

(The display changes each time the button is pressed.)

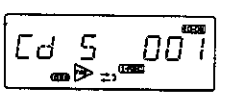
4 **Press ▶▶|/+ or |◀◀/– to select desired track.**

If you are going to record first track on the CD, skip this step.

5 **Press ●/● II.**

CD play and recording starts at the same time.

- Recording stops automatically after the selected track is finished.
- Only part of a track may be recorded at the end of the top side. This track will be re-recorded in its entirety at the beginning of the reverse side (when the reverse mode is set to ⇄).



To record another CD insuccession:

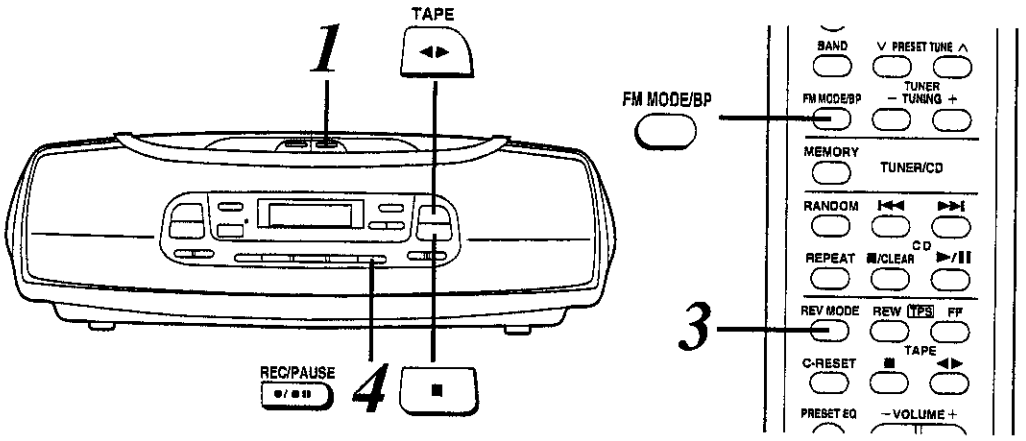
Press ▲ of the disc lid and replace the CD, then follow steps 4 and 5.

To stop recording:

Press ■.

CD play also stops at the same time.

Recording Radio Programs



Normal and high position tapes can be used.

1

Press ▲ and load the tape with the side to be recorded facing up.

- Find the position on the tape where the recording is to start.
- The direction is automatically set to record on the side facing up (▷ display lights).
- When recording from the start of side A or B, have the leader tape wound up before proceeding (see page 16).

2 **Select the desired station.**
(See pages 11 to 12.)

3 REV MODE

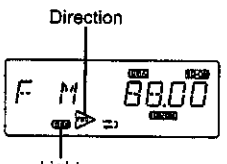
Press REV MODE to select the mode.
(See page 16.)

4 REC/PAUSE

Press ●/● II.

▷: Recording starts from the side facing up.

◁: Recording starts from the reverse side.



To stop recording:
Press ■.

To stop recording temporarily:
Press ●/● II.
To resume recording, press ●/● II.

For your reference:
- The recording level is set automatically.
- Any change made to the volume or sound quality during recording will not affect the recording.

To switch the tape direction (Forward to backward)

This function is available only when ▷ is displayed.

TAPE

Press ◄ ► during recording.
The direction cannot be switched when ◁ is displayed.

When there is too much interference during AM (LW/MW) recording

(Available only from the remote control)

FM MODE/BP

Press FM MODE/BP.
Select "bP1", "bP2" or "bP3" whichever yields less noise.

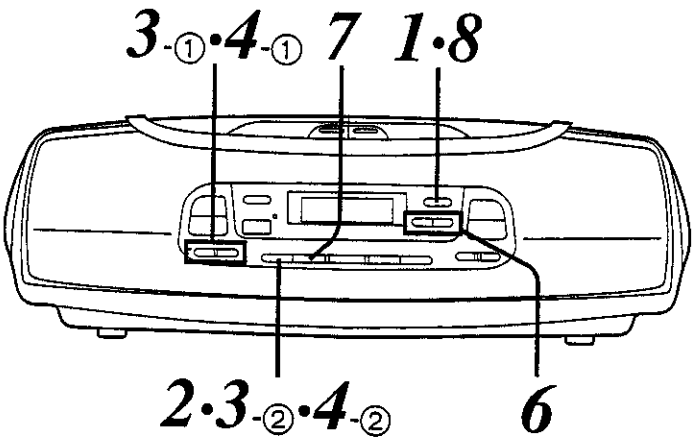
Note
bP3 is available only for LW.

Type of tape which can be used for recording:

Normal position/TYPE I	○
High position/TYPE II	○
Metal position/TYPE IV	×

This unit cannot make a recording or erasing correctly, if metal position tapes are used.

Using Play Timer



Make sure that you have set the clock. (See page 7.)

Example: Setting the timer to play a CD from 7:00 to 8:30:

1 BATT/(POWER)

Press POWER.

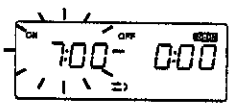
2 CLOCK/ TIMER ADJUST

Press ADJUST so that the timer time is displayed.

Clock ⟶ Timer time to start
↑ ↓
Original display ⟵ Timer time to finish
(The display changes each time the button is pressed.)

3 ① CD/TUNE/TIME

① Press ▶▶|/+ or |◀◀/– to show the time to start playing.

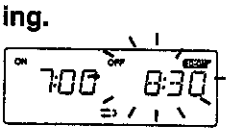


② CLOCK/ TIMER ADJUST

② Press ADJUST.
(The "OFF" indication starts flashing.)

4 ① CD/TUNE/TIME

① Press ▶▶|/+ or |◀◀/– to show the time to finish playing.



② CLOCK/ TIMER ADJUST

② Press ADJUST.

If you fail to set time:
Make sure not to set the same time for both starting and ending the timer.

5

Get the music source ready.

Listening to tapes:
See pages 13 and 14.
Listening to CD:
See pages 8 to 10.
Listening to the radio:
See pages 11 to 12.

6 VOLUME

Turn VOLUME to adjust the volume which will be heard during play.

7 • PLAY • • REC TIMER

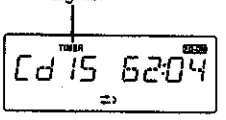
Press TIMER to display "ON".

ON→REC→OFF
↑ ↓

(The display changes each time the button is pressed. When using CD source "REC" will not light up.)

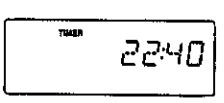
If "TIMER" indicator does not light:
Make sure that you have set the clock (see page 7).

Lights.



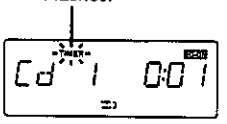
8 BATT/(POWER)

Press POWER to turn the unit off.



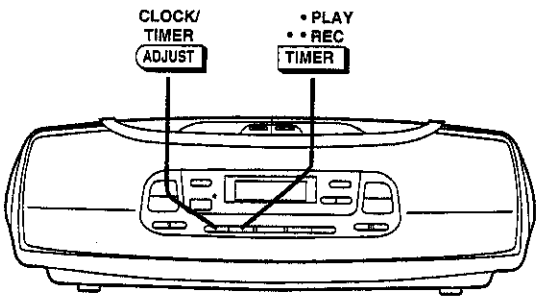
"TIMER" flashes during the programmed time

Flashes.



(Continued on next page)

Using Play Timer



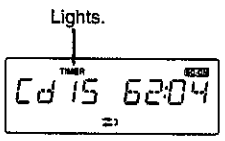
To release the timer function:
(only when the unit is on)
Press TIMER to turn "OFF" display on.
The timer will operate on the time you have set, if you press TIMER again so that the "TIMER" indicator lights.

To check what has been programmed:
Press ADJUST when the unit is off and TIMER display on.
The display changes automatically as follows:
1. Programmed time
2. Programmed source
3. Programmed volume level
4. Original display

To enjoy play after programming: (after step 7)
1. Start playing the desired sound source.
2. After play, turn the unit off before timer play starts.

Even if you change the volume level or sound source, whatever was programmed is restored at the play time.

Using the timer at the same time every day:
First check that TIMER appears on the display and then turn the unit off.



To change the source and volume for the timer function:
Press TIMER to turn off the "TIMER" display, and then perform steps 5 to 8 on page 21.

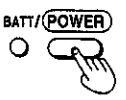
To stop the timer in mid-operation:
Turn the unit off.

Note
The timer will not operate if the unit is on.

Using Recording Timer

You can record a desired radio broadcast at a set time.

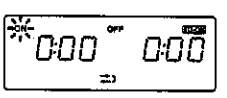
Make sure that you have set the clock (see page 7).
Example: Setting the timer to record an FM program from 13:00 to 14:30:

1 

Press POWER.

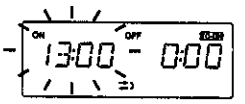
2

Press ADJUST so that the timer time is displayed.
Clock ⟶ Timer time to start
↑ ↓
Original display ⟵ Timer time to finish
(The display changes each time the button is pressed.)



3 ①

① Press ▶▶|/+ or |◀◀/– to show the time to start recording.

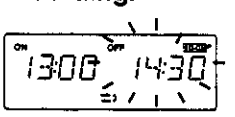


②

② Press ADJUST.
(The "OFF" indication starts flashing.)

4 ①

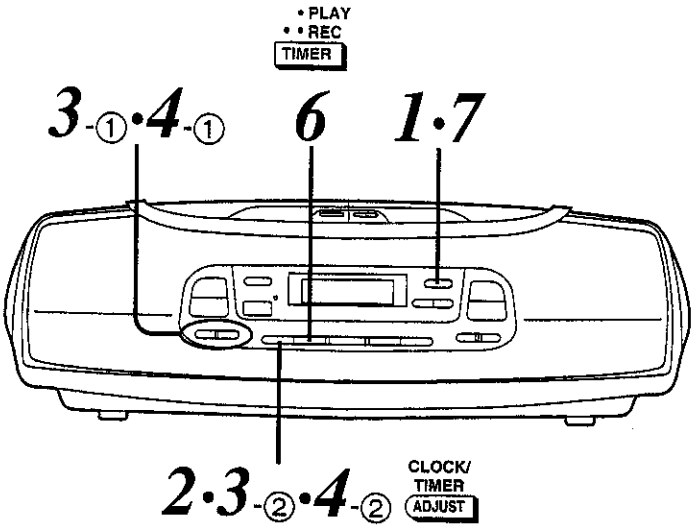
① Press ▶▶|/+ or |◀◀/– to show the time to finish recording.



②

② Press ADJUST.

If you fail to set time:
Make sure not to set the same time for both starting and ending the timer.



5

Prepare for recording.

1. Load the tape with the side on which the recording will start facing up.
2. Select the broadcast station. (See pages 11 and 12.)
3. Press REV MODE to select the reverse mode (see page 16).

If you do not want to hear any sound while recording, turn down the volume. (This will not affect the recording level.)

6

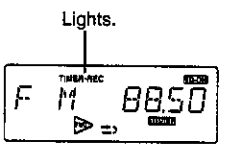
Press TIMER to display "REC".

ON→REC→OFF

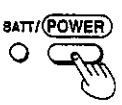
(The display changes each time the button is pressed.)

If "TIMER-REC" indicator does not light:

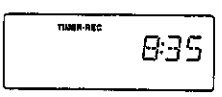
Make sure that you have set the clock (see page 7).



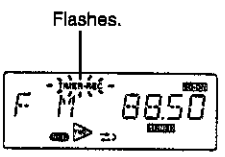
7



Press POWER to turn the unit off.



"TIMER-REC" flashes during the programmed time.



To release the timer function:

(only when the unit is on)

Press TIMER to turn "OFF" display on.

The timer will operate on the time you have set, if you press TIMER again so that the "TIMER-REC" indicator lights.

To check what has been programmed:

Press ADJUST when the unit is off and TIMER display on.

The display changes automatically as follows:

1. Programmed time
2. Programmed station
3. Programmed volume level
4. Original display

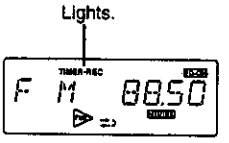
To enjoy play after programming: (after step 6)

1. Start playing the desired sound source.
2. After play, turn the unit off before timer recording starts.

- Be sure to turn tape direction indicator toward desired direction before you turn the unit off.
- Even if you change the volume level or sound source, whatever was programmed is restored at the recording time.

Using the timer at the same time every day:

First check that TIMER-REC appears on the display and then turn the unit off.



To change the station to be recorded:

Press TIMER to turn off the "TIMER-REC" display, and then perform steps 5 to 7.

To stop the timer in mid-operation:

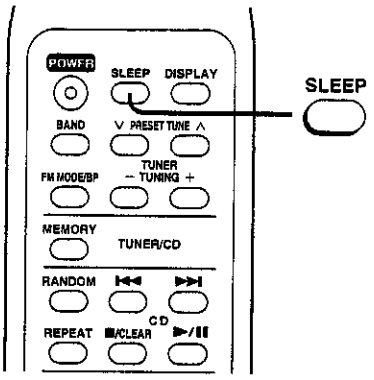
Turn the unit off.

Note

The timer will not operate if the unit is on.

Using the Sleep Timer

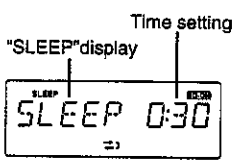
(Available only from the remote control)
The unit off time can be set up to two hours ahead of the present time.



Press SLEEP to select the desired time.

0:30→1:00→1:30→2:00→OFF

(The display changes each time the button is pressed.)



The unit is turned off after the time set has elapsed.

To release the timer function:
Press SLEEP to select "SLEEP OFF".

To check the time remaining during operation:
Press SLEEP.

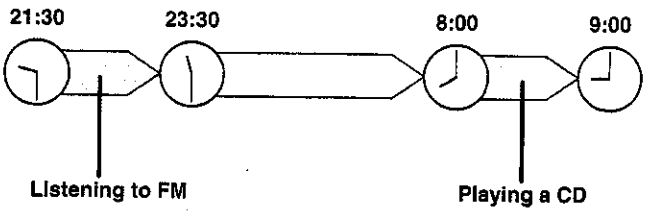
To change the time remaining during operation:
Press SLEEP to show the remaining time then press SLEEP to select the desired time.

Hint
Pressing SLEEP can turn the unit on (only when AC power is supplied).

Using Two Timer Functions

Using the sleep timer in combination with the play timer

Example:
Falling asleep while listening to an FM program and waking up the next morning listening to a CD



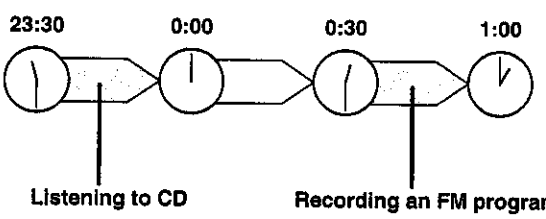
1. **Program the CD play using the play timer. (See pages 21 and 22.)**
2. **Select the broadcast station. (See pages 11 and 12.)**
3. **Operate the sleep timer. (See to the left.)**

Note
When listening to a CD using both the sleep and play timers:
If tracks are programmed then the selection will be played at both times.

For your reference:
Even if the volume level is changed when the sleep timer was operating, the volume during the play timer operation will be at the level selected during programming.

Using the sleep timer in combination with the recording timer

Example:
Falling asleep while listening to CD play and recording a late-night program on FM



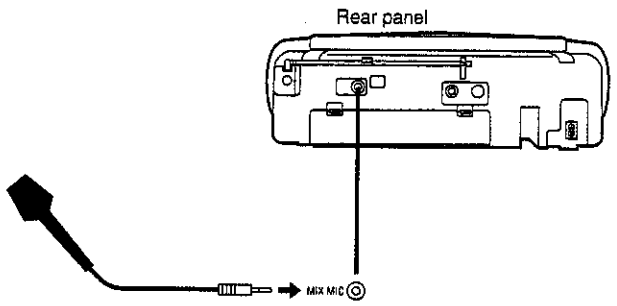
1. **Program the recording timer. (See pages 22 and 23.)**
2. **Play the CD. (See pages 8 to 10.)**
3. **Operate the sleep timer. (See to the left.) (Set the sleep timer to turn the unit off before recording is due to start.)**

Note
You cannot use play timer in combination with the recording timer.

Using an External Unit

Using microphone

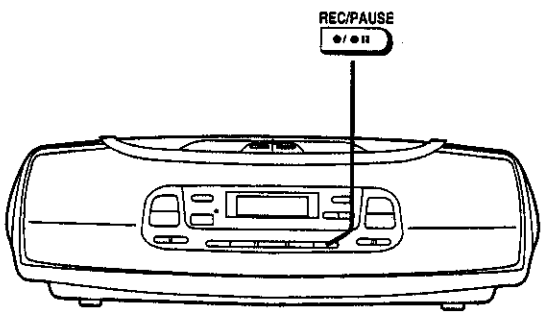
Karaoke



Microphone (plug type: mini)

1. **Lower the volume and connect the microphone (not included).**
2. **Start playing a CD or tape, or turn on the radio.**
3. **Start karaoke singing and adjust the volume.**

Recording karaoke sound with accompaniment from a CD

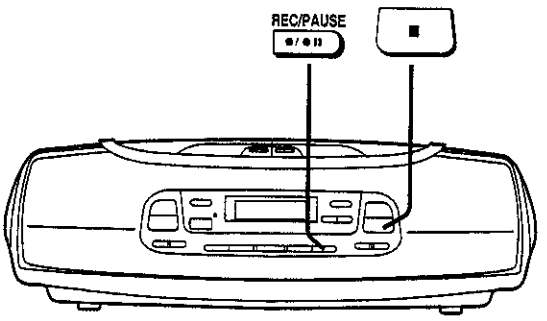


1. **Lower the volume and connect the microphone.**
2. **Insert the CD and program desired track (see page 10).**
3. **Load the tape.**
4. **Select the mode using REV MODE on the remote control (see page 16).**
5. **Press ●/● II.**
   Play and recording start.

Note

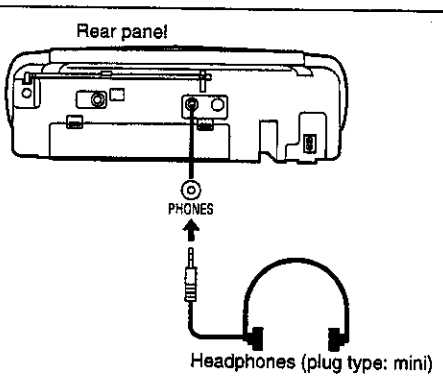
When karaoke singing with accompaniment from a CD, sound is heard only while the CD is playing. No sound is heard in the stop or pause mode.

Recording the sound through the microphone



1. **Lower the volume and connect the microphone.**
2. **Press ■.**
3. **Load the tape.**
4. **Select the mode using REV MODE on the remote control (see page 16).**
5. **Press ●/● II.**
   Recording starts.

Using headphones



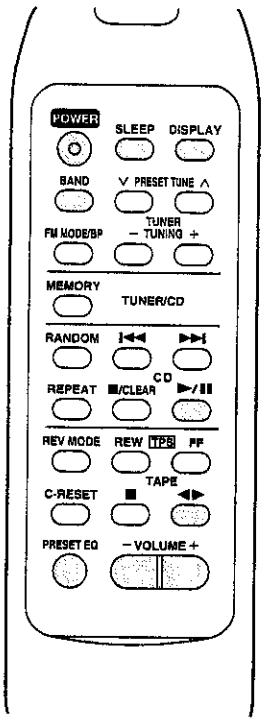
Headphones (plug type: mini)

Lower the volume and connect the headphones (not included).

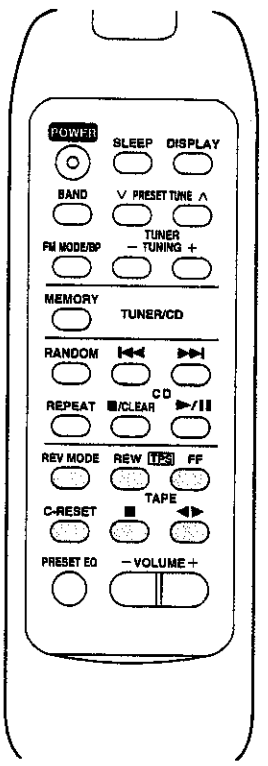
Note:

Avoid listening for prolonged periods of time to prevent hearing damage.

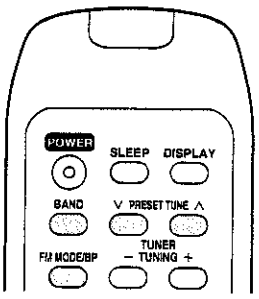
Quick Reference of Remote Control Operations



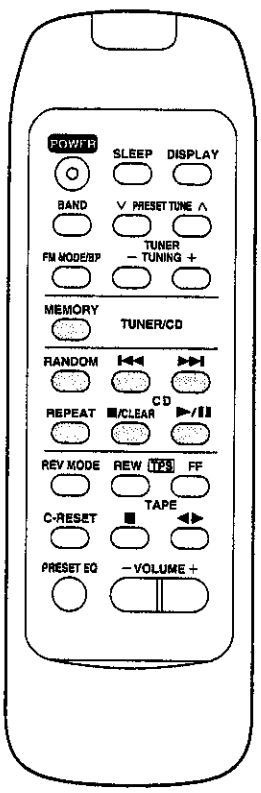
Common operations	
Turn the unit on and off (When using the battery power, you can only turn off.)	POWER
Selecting the equalizer effect	PRESET EQ
Adjusting the volume	− VOLUME +
Selecting the display	DISPLAY
One touch play	(Radio) BAND ; (CD) ►/II ; (Tape) ◄►
Setting/releasing the sleep timer	SLEEP



Cassette deck operations	
Starting playback Changing the direction	TAPE ◄►
Rewinding/Fast forwarding	In the stop mode REW TPS FF
Finding the beginning of a track (TPS)	During playback REW TPS FF
Stopping the tape	■
Selecting the reverse mode	REV MODE
Resetting the tape counter to "000"	C-RESET



Tuner operations	
Listening to a programmed radio station	BAND → ∨ PRESET TUNE ∧
Selecting reception in stereo or monaural Reducing noise during the recording of AM (LW/MW) programs	FM MODE/BP



CD operations	
Starting play/ Temporarily stopping play	CD ▶/II
Stopping play/ To clear program play	■/CLEAR
To skip tracks	⏮ ⏭
To search forward or backward	(Keep pressing) ⏮ ⏭
Listening to track(s) repeatedly	REPEAT
Listening to track(s) at random	RANDOM
Selecting and listening to favorite tracks	⏮ ⏭ → MEMORY → ▶/II

Troubleshooting Guide

Before requesting service for this unit, check the chart below for a possible cause of the problem you are experiencing. Some simple checks or a minor adjustment on your part may eliminate the problem and restore proper operation.
If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the directory of Authorized Service Centers (enclosed with this unit) to locate a convenient service center, or consult your dealer for instructions.

Problem	Probable cause(s)	Suggested Remedy	Page
Common problems			
No operation. (When batteries are used as the power source)	Is the AC power cable still connected to the unit while batteries are being used?	Disconnect the AC power cable.	5
	Are the batteries flat?	Replace them with new ones. Alternatively, use a household AC outlet as the power source.	5
	Have the batteries been installed incorrectly with their (+) and (−) polarities reversed?	Align the (+) and (−) polarities correctly.	5
"U01" appears.	The batteries are flat.	Replace them with new ones. Alternatively, use a household AC outlet as the power source.	5
"U02" appears.	The power is not supplied to the unit.	Install the batteries or connect the power cable.	5
While listening to CDs			
Play does not start. No display of track numbers, etc.	Has the CD been installed upside down?	Install the CD with the label side facing up.	8
	Has condensation formed on the unit's CD section?	Turn the unit on and leave it on for about an hour before further operation.	
Certain sections are not played properly.	Is the CD soiled?	Wipe with a soft cloth.	30
	Is the CD scratched?	Replace with a new CD.	
While listening to tapes			
No recording.	Have the tape's accidental erasure prevention tabs been broken out?	Cover the holes with adhesive tape.	30
Sound is low, intermittent, or poor quality, noisy, scratchy, or unsteady.	Are the heads soiled?	Clean them.	31
	Have the heads been magnetized?	Demagnetize them using a demagnetizer available from an audio store.	
While listening to the radio			
Stations cannot be tuned in well. Noise heard during AM (LW/MW) reception.	Has the antenna been adjusted properly?	Try changing its direction.	11
	Are you using a remote control of other appliances near the unit?	Use the remote control at a distance.	
	Are you operating the unit and a TV set at the same time?	Place the unit at a distance from the TV. Alternatively, turn the TV off.	
While using the timer			
No timer operation at the programmed time.	Is the unit turned on (when the play timer and the recording timer are being used)?	Turn the unit off upon completion of the settings.	21 23
	Has the programmed timer indicator (TIMER, TIMER-REC or SLEEP) lighted?	Operate again so that the display lights up.	21 23 24

Problem	Probable cause(s)	Suggested Remedy	Page
While using the remote control			
No operation.	Are the batteries flat?	Replace them with new ones.	5
	Have the batteries been installed incorrectly with their (+) and (−) polarities reversed?	Align the (+) and (−) polarities correctly.	5
	Is the remote control's transmitter pointed at the unit's sensor?	Check whether anything is obstructing the path between the two and point the remote control squarely at the unit's sensor and operate.	5
	Is the unit's sensor exposed to direct sunlight or strong fluorescent light?	Shield the sensor from strong sources of light.	5

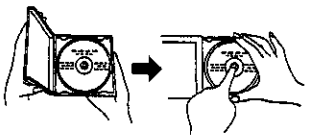
Concerning Compact Discs

Only compact discs having this mark can be used with this unit.

COMPACT disc DIGITAL AUDIO

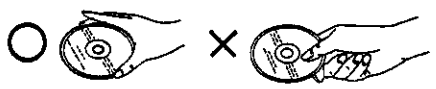
To remove a disc from its case

Press the center holder and lift the disc holding by the edges.



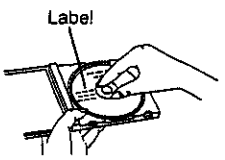
To hold the disc

Hold the disc by the edges so the surface is not soiled with fingerprints.
Fingerprints, dirt and scratches can cause skipping and distortion.



(Correct) (Incorrect)

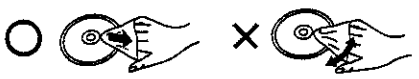
To store a disc in its case



Insert the disc with label facing upwards and press downward at the center.

If the surface is soiled

Wipe gently with a soft, damp (water only) cloth.



(Correct) (Incorrect)

If the disc is brought from a cold to a warm environment, moisture may form on the disc
Wipe this moisture off with a soft, dry, lint-free cloth before using the disc.

Improper disc storage:

You can damage discs if you store them in the following places:
- Areas exposed to direct sunlight
- Humid or dusty areas
- Areas directly exposed to a heat outlet or heating appliance

Handling precautions:

- Do not write on the label side with a ball-point pen or other writing utensils.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not soil with fingerprints.

Concerning Cassette Tapes

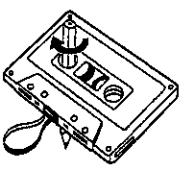
Selection of cassette tapes

Cassette tapes of 100 minutes or longer:
These tapes are handy for their long playback and recording time but be careful about repeatedly stopping and starting, rewinding and fast forwarding these tapes in short intervals as they are thin, tend to stretch and may become entangled in the deck mechanism.

Endless tapes:
Failure to operate these tapes correctly may cause the tape to wind around the revolving parts.
For this unit, it is recommended to use the tape which is appropriate to the auto reverse mechanism.

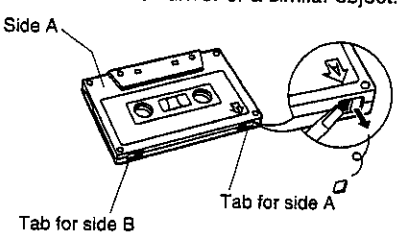
If the tape loosens, take up the slack

Tape slack may cause the tape to break.

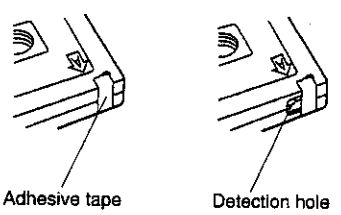


To prevent erasure of recorded sounds

Remove the tabs with a screwdriver or a similar object.



To re-record on a protected cassette, cover the slot with adhesive tape.



Do not cover the detection holes on high position tapes.

Improper tape storage:

You can damage tapes if you store them in the following places;
- In high temperature (35°C or higher) or high humidity (80% or higher) areas
- In a strong magnetic field (near a speaker, on top of a TV, etc.) This can erase a recording.
- Areas exposed to direct sunlight

To erase sound previously recorded on a tape:

Disconnect the microphone.
1. Load the tape.
2. Press ■.
3. Press ●/● II.

Maintenance

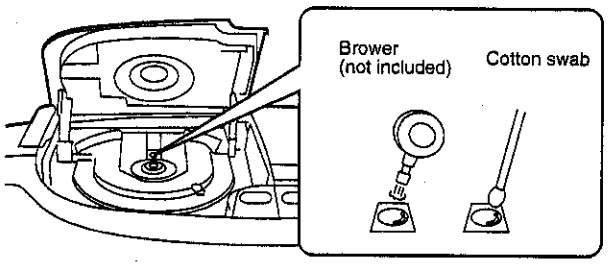
Maintenance of external surfaces

To clean this unit, use a soft, dry cloth.
If the surfaces are extremely dirty, use a soft cloth dipped in a soap and water solution or a weak detergent solution.

Wring the cloth well before wiping the unit.
Wipe once again with a soft, dry cloth.
Never use alcohol, paint thinner, benzine, or chemically treated cloths to clean this unit. Such chemicals may damage the finish of your unit.

Lens care

Open the CD lid and clean the lens with a blower (not included).
If the lens is extremely dirty, clean it with a cotton swab.

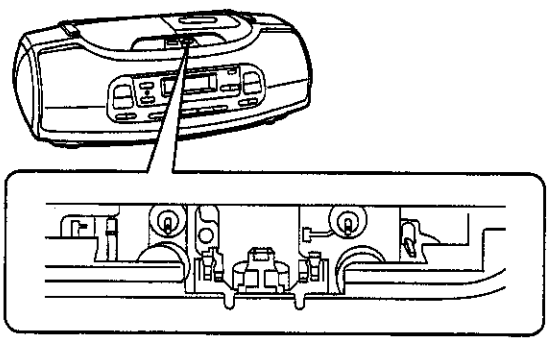


Tape head care

To assure sound quality for recording and playback, be sure to clean the tape heads after approximately every 10 hours of use.

1. Open the tape lid by pressing ▲.
2. Clean the portions which contact the tape (the shaded portions in the figure) with a cotton swab.

Do not use any solution other than alcohol for head cleaning.



Technical Specifications

Radio

Frequency range

(For United Kingdom)

FM	87.5–108 MHz (50 kHz steps)
LW	144–288 kHz (9 kHz steps)
MW	522–1611 kHz (9 kHz steps)

(For Australia and New Zealand)

FM	87.5–108 MHz (50 kHz steps)
AM	531–1602 kHz (9 kHz steps)

CD player

Sampling frequency	44.1 kHz
Decoding	16 bit linear
Beam source	Semiconductor laser (wavelength: 780 nm)
No. of channels	2 channel, stereo
Wow and flutter	Less than possible measurement data
D/A converter	MASH (1 bit DAC)

Tape recorder

Track system	4 track, 2 channel, stereo
Monitor system	Variable sound monitor
Recording system	AC bias
Erasing system	AC erase
Frequency range	
Normal position	50–16000 Hz
High position	50–17000 Hz

General

Power requirement	
AC	230–240 V, 50 Hz, Power consumption: 36 W
Battery	12 V (Eight R20/LR20, UM-1 batteries) Do not use rechargeable type batteries.
Memory back-up for computer/clock	6 V (Four R6/LR6, UM-3 batteries) Do not use rechargeable type batteries.
Speakers	8 cm×2
Jacks	
Output	PHONES: 32Ω
Input	MIX MIC: 5 mV (200–600Ω)
Dimensions (W×H×D)	499×162×262 mm
Weight	3.8 kg without batteries

Note:
Specifications are subject to change without notice.
Weight and dimensions are approximate.

MASH is a trademark of NTT.

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